

REMARKS

Claims 1, 2, 6-8, 13, 21, 23, 24, 29, 33 and 39 have been amended. Claims 6, 24 and 42 are withdrawn, but are respectfully requested to be reinstated and allowed upon allowance of a respective independent claim and any intervening claim from which they depend. Reconsideration and allowance of the application, as amended, are respectfully requested.

I. Claims 1-5, 7-23, 25-41, 43 and 44 Are Patentable Over Foley

Independent claims 1, 7, 13, 18, 26, 33 and 39 and respective dependent claims 2-5, 8-12, 14-23, 25, 27-32, 34-38, 40, 41, 43 and 44 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,663,622 to Foley *et al.* ("Foley"). To establish a *prima facie* case of obviousness of a claim under 35 U.S.C. §103(a), all the claim limitations must be taught or suggested by the prior art, and all words in a claim must be considered in judging patentability. Additionally, there must be some suggestion or motivation to modify the reference, and a reasonable expectation of success. The mere fact that a reference can be modified does not render the resultant modification obvious unless the prior art also suggests the desirability of the modification. Further, a proposed modification of prior art cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of the reference. It is also improper to modify or combine references where the references teach away from the modification or combination.

Foley fails to disclose, teach or suggest, and is not related to, "[a] suction device for use with an electrophysiology device, the electrophysiology device including an operative element, a fluid lumen and a fluid outlet," as recited in claim 1, "an electrophysiology device including a support structure, at least one operative element carried on the support structure, a fluid lumen

and a fluid outlet,” as recited in claim 18, or a method of operating an electrophysiology device, wherein the device includes “a support structure, at least one operative element carried on the support structure, a fluid lumen and a fluid outlet,” as recited in claim 39. The Office Action asserts that the ablation probe 260 described by Foley is the “electrophysiology device” recited in the claims. Foley, however, only generally describes ablation probe 260 and mentions different types of ablation probes (e.g., RF and laser). Foley does not otherwise disclose, teach or suggest the internal configuration of the ablation probe, that the ablation probe 260 has a fluid lumen, or that the ablation probe 260 has a fluid outlet. Further, the Office Action has not provided any evidence to establish that the ablation probe 260 inherently includes both a fluid lumen and a fluid outlet, and such an assertion would not be supported by the limited description of the ablation probe 260 provided by Foley.

Further, Foley fails to disclose, teach or suggest “a connector configured to removably secure the electrophysiology device to the suction device,” as recited in claim 1, “a connector configured to removably secure the electrophysiology device to the suction device,” as recited in claim 7, “a connector configured to removably secure the electrophysiology device to the suction device,” as recited in claim 13, “a suction device including at least one suction pod defining a suction region and a connector that removably secures the electrophysiology device to the suction device,” as recited in claim 18, “a suction device including at least one suction pod defining a bottom surface and a connector that removably secures the electrophysiology device to the suction device,” as recited in claim 26, or “a suction device including two longitudinally spaced suction pods and a connector configured to removably secure the electrophysiology device to the suction device,” as recited in claim 33.

The Office Action generally asserts that Foley discloses a connector that secures an electrophysiology device to a suction device, but does not specifically identify the connector, how the connection is made, or how the electrophysiology device is removably secured to a suction device. Foley explains only that the ablation probe 260 can be “molded into or otherwise encased” in flange 258 of the ablation template device 240, that the flange 258 is designed to “hold” ablation probe 260, and that the carriage 256, which defines the flange 258 that holds the probe 260, is slidably mounted on rails 254. (Foley, col. 26, lines 35-56). *See also*, Foley, col. 26, lines 52-53 (As in other embodiments, electrodes can be “integrated with seal member 252...”). Thus, Foley describes configurations in which the ablation probe 260 is permanently secured to a suction device, and not an ablation probe that is removably securable to a suction device, as is required by Applicants’ claims.

Foley also fails to disclose, teach or suggest a connector configured to removably secure the electrophysiology device to the suction device such that the “fluid outlet is within the suction region,” as recited in claims 1 and 18. The Office Action asserts that the ablation probe 260 described by Foley (Foley, Figs. 21-23) is an “electrophysiology device,” as recited in Applicants’ claims, and generally asserts that Foley discloses a fluid output within a suction region. This assertion relies upon a single sentence in Foley, namely that “a fluid line may extend between ablation stylus and a cryogenic source.” (Foley, col. 26, lines 27-28). The Office Action assertion, however, is not supported by the very limited disclosure of Foley.

The single sentence of Foley generally suggests a fluid line, but does not otherwise disclose, teach or suggest an open cryogenic system in which a fluid outlet is within a suction region so that fluid can exit the fluid line through the fluid outlet and into the suction region. Further, the single sentence of Foley is not a reference to providing fluid through a fluid outlet of

an electrophysiology device to a suction region. Rather, the single sentence of Foley is a general reference to providing a supply line for cryogenic fluid used for the ablation stylus, and it is not inherent that fluid exits the fluid line since such cryogenic systems are normally closed systems in which fluid is maintained inside a fluid line. The Office Action has provided no evidence to establish that the fluid line is inherently part of an open cryogenic system. Indeed, Foley teaches away from using an open cryogenic system by explaining “[a] vacuum port or other fluid removal device may be desirable to *remove fluids from the chamber to avoid the effects of such fluids on the electrical performance* of the electrodes(s) or electrical ablation devices.” (Foley, col. 5, lines 52-57) (emphasis added).

Additionally, Foley fails to disclose, teach or suggest “a portion of the electrophysiology device extends below the bottom surface of the suction pod,” as recited in claims 7 and 26. The Office Action has not addressed this limitation, but Foley nevertheless fails to disclose, teach or suggest this configuration. Instead, Foley generally illustrates an ablation probe 260 that does not extend below a bottom surface of a suction pod. (*See, e.g.*, Foley, Figures 21-23). If the rejection stands, Applicants respectfully request the Examiner to specifically identify how Foley anticipates claims 7 and 26.

Foley also fails to disclose, teach or suggest a connector configured to removably secure the electrophysiology device to the suction device such that “a substantial majority of the operative element is between the suction pods,” as recited in claims 13 and 33. The Office Action has not addressed this limitation, but Foley nevertheless fails to disclose, teach or suggest this configuration. Instead, Foley illustrates ablation probe 260 positioned at a side (the right side as shown in the Figures) of a guide member 248 having vacuum ports 266. (Foley, Figures 21-23). Thus, the ablation probe 260 is not between any vacuum portions, much less arranged so

that a substantial majority of the ablation probe is the vacuum ports 266. Otherwise, Foley merely generally explains that an ablation probe 260 may have electric conductors that run along the length of the guide member 248. If the rejection stands, Applicants respectfully request the Examiner to specifically identify how Foley anticipates claims 13 and 33.

Additionally, Foley fails to disclose, teach or suggest, and in fact teaches away from, “drawing fluid from the fluid outlet [of the electrophysiology device] into the suction device,” as recited in claim 39. The deficiencies of the single sentence of Foley (Foley, col. 26, lines 27-28) are discussed above with respect to claims 1 and 18.

In view of these deficiencies, Applicants respectfully submit that independent claims 1, 7, 13, 18, 26, 33 and 39 are patentable over Foley. Dependent claims 2-5, 8-12, 14-23, 25, 27-32, 34-38, 40, 41, 43 and 44 depend from and incorporate all of the elements and limitations of respective independent claims 1, 7, 13, 18, 26, 33, and 39 and add further novel and non-obvious limitations thereto. These dependent claims, therefore, are also believed patentable over Foley.

For example, Foley fails to disclose, teach or suggest “wherein the connector comprises a slot,” as recited in claims 5, 11 and 16. The Office Action does not identify which section of Foley discloses a “slot,” as recited in claims 5, 11 and 16. Nevertheless, the sections of Foley cited in the Office Action describe and illustrate an ablation probe held by a flange 258 of a carriage 256.

Further, Foley fails to disclose, teach or suggest “wherein the connector is configured to removably secure the electrophysiology device to the suction device such that the portion of the electrophysiology device extends about 0.5 mm below the bottom surface of the suction pod,” as recited in claim 12, and “wherein the electrophysiology device and connector are configured such that the portion of the electrophysiology device extends about 0.5 mm below the bottom surface

of the suction pod when the electrophysiology device is connected to the suction device,” as recited in claim 28. The Office Action does not address these limitations, but as discussed above, Foley does not disclose teach or suggest a portion of an electrophysiology device extending below the bottom surface of a suction pod or extending about 0.5 mm below the bottom surface of a suction pod.

Foley also fails to disclose, teach or suggest “wherein the electrophysiology device includes a plurality of longitudinally spaced operative elements supported on a support body and the connector is configured to removably secure the electrophysiology device to the suction device such that respective portions of the support body between the longitudinally spaced operative elements are aligned with the suction pods,” as recited in claim 17, and “wherein the electrophysiology device includes a plurality of longitudinally spaced operative elements supported on a support body and the electrophysiology device and suction device are respectively configured such that respective portions of the support body between the longitudinally spaced operative elements are aligned with the suction pods when the electrophysiology device is connected to the suction device,” as recited in claim 36. The Office Action refers to ablation electrode 260, but Foley does not disclose, teach or suggest a plurality of longitudinally spaced operative elements or alignment of such elements with suction pods, particularly considering that the ablation electrode 260 is located beside the guide member 248. (Foley, Figures 21 and 23). Otherwise, Foley generally explains that an ablation probe 260 may have electric conductors that run along the length of the guide member 248.

Foley also fails to disclose, teach or suggest “wherein electrophysiology device defines a distal end, the connector comprises a slot defining a distal end, and the electrophysiology device and suction device are respectively configured such that the fluid outlet is within the suction

region when the distal end of the electrophysiology device is adjacent to the distal end of the slot,” as recited in claim 19, in view of the above remarks.

Foley also fails to disclose, teach or suggest “wherein the at least one operative element comprises a plurality of spaced electrodes,” as recited in claims 25 and 32, and “wherein the plurality of longitudinally spaced operative elements comprises a plurality of longitudinally spaced electrodes,” as recited in claim 37. Rather, the Office Action has only referred to ablation electrode 260, which may have electric conductors that run along the length of the guide member 248. There is no explanation provided as to how Foley in fact discloses, teaches or suggests claims 25, 32 and 37.

Moreover, Foley fails to disclose, teach or suggest “wherein the step of removably securing the suction device to the electrophysiology device comprises creating an interference fit between the suction device and the electrophysiology device,” as recited in claim 40. Rather, the Office Action generally refers to ablation probe 260, and Foley explains that the probe 260 is held by a flange 258 of carriage 256.

Further, Foley fails to disclose, teach or suggest “vaporizing the fluid,” as recited in claim 43 nor does the Office Action explain how Foley applies to claim 43.

Finally, Foley fails to disclose, teach or suggest “removing the fluid drawn into the suction device from a patient,” as recited in claim 44, in view of the above remarks.

For the at least the foregoing reasons, all claims of the present application as amended herein are believed to be allowable over Foley, and reconsideration and withdrawal of the rejections over Foley is respectfully requested.

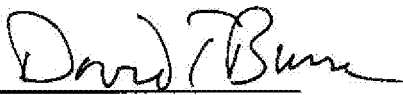
CONCLUSION

Applicants respectfully submit that the application is in condition for allowance in view of the forgoing amendments and remarks. If there are any remaining issues that can be resolved by telephone, Applicants invite the Examiner to contact the undersigned at the number indicated below.

Respectfully submitted,

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Dated: January 22, 2007

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